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EXAMINER
CUTLER, ALBERT H

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/710,762	CHANG, SHAN-WEN	
	Examiner	Art Unit	
	Albert H. Cutler	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to communication filed on October 19, 2007.

Claims 1-23 are pending in the application.

Response to Arguments

2. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 20-22 rejected under 35 U.S.C. 102(b) as being anticipated by O'Such et al.(US 5,130,739, hereinafter referred to as O'Such).

Consider claim 20, O'Such teaches:

A method for adjusting an image exposure period(column 83, line 67 through column 84, line 16), comprising:

generating a trigger signal in response to an image capturing device being substantially stationary(A camera microcomputer senses that a camera is connected to a tripod(i.e. is substantially stationary) and switches to a prioritized scheme the favors increased apertures over shorter shutter speeds, column 84, lines 2-9. A switch, acting as a tripod detector, provides the trigger signal, column 26, lines 26-33.); and

adjusting an image exposure period in response to the trigger signal(The shutter speed is changed(i.e. the exposure period is adjusted), column 84, lines 2-16.).

Consider claim 21, and as applied to claim 20 above, O'Such further teaches:

actuating a trigger in response to an image capturing device being substantially stationary and generating the trigger signal in response to the trigger being actuated(A switch(i.e. a trigger), acting as a tripod detector, is actuated and provides the trigger signal when connected to a tripod, column 26, lines 26-33. See also column 84, lines 2-16.).

Consider claim 22, and as applied to claim 20 above, O'Such further teaches lengthening the image exposure period in response to the trigger signal(When connected to a tripod(i.e. in response to a trigger signal), changing the aperture is performed by the microprocessor over decreasing the exposure period in order to improve image quality. When not connected to the tripod, decreasing the exposure period is performed by the microprocessor over changing the aperture in order to compensate for image blur. Therefore, when a going from an unconnected state with a high shutter speed, to a connected state in which a trigger is activated, the shutter speed is decreased(i.e. the exposure period is lengthened) because the camera is stable. See column 84, lines 2-16. See also column 83, lines 46-59.).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-5, 7-10, 12-19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keiichiro(Japanese Patent Application Publication 2003-189164) in view of O'Such(US 5,130,739, hereinafter referred to as O'Such).

Consider claim 1, Keiichiro teaches:

A digital camera(drawing 1) for detecting whether to be stable(The system detects whether a camera is connected to a tripod(i.e. whether to be stable), paragraphs 0010-0017.) comprising:

a housing(The camera has a "body"(i.e. housing), paragraph 0010);

a lens(9A and 9B) formed on the housing for inputting light(paragraph 0008);

a photosensor(10) for sensing the inputted light(paragraph 0008);

an image generator for generating an image based on the sensed light(The photosensor(10) generates an image by changing incident light into an electrical signal with the help of a CPU(8), paragraphs 0008 and 0009.); and

a trigger(21, 22, 23), disposed on the housing(drawing 1, paragraph 0010), for generating a trigger signal while the housing is substantially stationary(The trigger generates a signal indicating that the camera is connected to the tripod, paragraphs 0010, 0013, and 0015.).

However, Keiichiro does not explicitly teach that the image generator adjusts an image exposure period in response to the trigger signal.

O'Such is similar to Keiichiro in that O'Such teaches of a tripod detector for a camera(see figure 2, column 13, lines 62-65, column 83, line 67 through column 84, line 16).

However, in addition to the teachings of Keiichiro, O'Such teaches that an image generator(microprocessor) adjusts an image exposure period in response to the trigger signal(A camera microcomputer senses that a camera is connected to a tripod(i.e. is substantially stationary) and switches to a prioritized scheme the favors increased apertures over shorter shutter speeds, column 84, lines 2-9. A switch, acting as a tripod detector, provides the trigger signal, column 26, lines 26-33.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to adjust the image exposure period as taught by O'Such in

response to the trigger signal taught by Keiichiro for the benefit of achieving the greatest image quality possible based on the current stability of the camera(O'Such, column 84, lines 2-16).

Consider claim 2, and as applied to claim 1 above, Keiichiro further teaches:

the trigger comprises:

a movable rod(21, drawing 1) for triggering a switch to generate a trigger signal while a force is applied(Pressure on the moving rod(21) brings the contacts(22 and 23) together, creating a signal, paragraphs 0010, 0013, and 0015.); and

an elastic member(22) for returning the movable rod to stop the triggering of the switch, while the force is not applied on the movable rod(Terminal(22) is an elastic member, as when a force is applied(paragraph 0010) to the movable rod(21, see drawing 1), terminal(22) is pressed into contact with terminal(23), and when no force is applied, the terminals will not be in contact, paragraphs 0010-0017.).

Consider claim 3, and as applied to claim 2 above, Keiichiro further teaches that the movable rod(21) is extended out of the housing while no force is applied, but is pushed into the housing while the force is applied(See drawing 1. Movable rod(21) is extended out of the housing(20), but will retract into the housing when a force is applied in order to initiate a connection between terminals 22 and 23.).

Consider claim 4, and as applied to claim 2 above, Keiichiro further teaches that the movable rod is positioned within a recess on the housing(See drawing 1. A recess, which contains movable rod(21), is formed in the housing of the camera in order to accept a tripod.).

Consider claim 5, and as applied to claim 1 above, Keiichiro does not explicitly teach adjusting the exposure period in response to the trigger signal.

However, O'Such teaches that the image exposure period of the photosensor is prolonged in response to the trigger signal(When connected to a tripod(i.e. in response to a trigger signal), changing the aperture is performed by the microprocessor over decreasing the exposure period in order to improve image quality. When not connected to the tripod, decreasing the exposure period is performed by the microprocessor over changing the aperture in order to compensate for image blur. Therefore, when a going from an unconnected state with a high shutter speed, to a connected state in which a trigger is activated, the shutter speed is decreased(i.e. the exposure period is lengthened) because the camera is stable. See column 84, lines 2-16. See also column 83, lines 46-59.).

Consider claim 7, Keiichiro teaches:

An image-capturing system(drawing 1. The system detects whether a camera is connected to a tripod(i.e. whether to be stable), paragraphs 0010-0017.):

a digital camera comprising(drawing 1):

a housing(The camera has a "body"(i.e. housing), paragraph 0010);

a lens(9A and 9B) formed on the housing for inputting light(paragraph 0008);

a photosensor(10) for sensing the inputted light(paragraph 0008);

an image generator for generating an image based on the sensed light(The photosensor(10) generates an image by changing incident light into an electrical signal with the help of a CPU(8), paragraphs 0008 and 0009.);

a trigger(21, 22, 23), disposed on the housing(drawing 1, paragraph 0010), for generating a trigger signal while the housing is fixed(The trigger generates a signal indicating that the camera is connected to the tripod, paragraphs 0010, 0013, and 0015.).

a tripod(not shown, paragraph 10) for fixing the digital camera comprising:

a trigger end, for triggering the trigger of the digital camera for generating a trigger signal as the tripod is engaged with the digital camera(A tripod is anchored to the camera, and the male screw portion(i.e. a trigger end) of the tripod activates a trigger signal by pressing terminals(22 and 23) together(paragraphs 0010, 0013, 0015, drawing 1.).

However, Keiichiro does not explicitly teach that the image generator adjusts an image exposure period in response to the trigger signal.

O'Such is similar to Keiichiro in that O'Such teaches of a tripod detector for a camera(see figure 2, column 13, lines 62-65, column 83, line 67 through column 84, line 16).

However, in addition to the teachings of Keiichiro, O'Such teaches that an image generator(microprocessor) adjusts an image exposure period in response to the trigger signal(A camera microcomputer senses that a camera is connected to a tripod(i.e. is substantially stationary) and switches to a prioritized scheme the favors increased apertures over shorter shutter speeds, column 84, lines 2-9. A switch, acting as a tripod detector, provides the trigger signal, column 26, lines 26-33.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to adjust the image exposure period as taught by O'Such in response to the trigger signal taught by Keiichiro for the benefit of achieving the greatest image quality possible based on the current stability of the camera(O'Such, column 84, lines 2-16).

Consider claim 8, and as applied to claim 7 above, Keiichiro further teaches:

the trigger comprises:

a movable rod(21) for triggering a switch to generate a trigger signal while a force is applied(Pressure on the moving rod(21) brings the contacts(22 and 23) together, creating a signal, paragraphs 0010, 0013, and 0015.); and

an elastic member(22) for returning the movable rod to stop the triggering of the switch, while the force is not applied on the movable rod(Terminal(22) is an elastic member, as when a force is applied(paragraph 0010) to the movable rod(21, see

drawing 1), terminal(22) is pressed into contact with terminal(23), and when no force is applied, the terminals will not be in contact, paragraphs 0010-0017.).

Consider claim 9, and as applied to claim 8 above, Keiichiro further teaches the movable rod is positioned within a recess on the housing(See drawing 1. A recess, which contains movable rod(21), is formed in the housing of the camera in order to accept a tripod.).

Consider claim 10, and as applied to claim 7 above, Keiichiro does not explicitly teach adjusting the exposure period in response to the trigger signal.

However, O'Such teaches that the image exposure period of the photosensor is prolonged in response to the trigger signal(When connected to a tripod(i.e. in response to a trigger signal), changing the aperture is performed by the microprocessor over decreasing the exposure period in order to improve image quality. When not connected to the tripod, decreasing the exposure period is performed by the microprocessor over changing the aperture in order to compensate for image blur. Therefore, when a going from an unconnected state with a high shutter speed, to a connected state in which a trigger is activated, the shutter speed is decreased(i.e. the exposure period is lengthened) because the camera is stable. See column 84, lines 2-16. See also column 83, lines 46-59.).

Consider claim 12, Keiichiro teaches:

An apparatus(figure 1) comprising:

an image generator for generating an image(The photosensor(10) generates an image by changing incident light into an electrical signal with the help of a CPU(8), paragraphs 0008 and 0009.); and

a trigger(21, 22, 23) for generating a trigger signal while the apparatus is stationary(The trigger generates a signal indicating that the camera is connected to a tripod, paragraphs 0010, 0013, and 0015.).

However, Keiichiro does not explicitly teach that the image generator adjusts an image exposure period in response to the trigger signal.

O'Such is similar to Keiichiro in that O'Such teaches of a tripod detector for a camera(see figure 2, column 13, lines 62-65, column 83, line 67 through column 84, line 16).

However, in addition to the teachings of Keiichiro, O'Such teaches that an image generator(microprocessor) adjusts an image exposure period in response to the trigger signal(A camera microcomputer senses that a camera is connected to a tripod(i.e. is substantially stationary) and switches to a prioritized scheme the favors increased apertures over shorter shutter speeds, column 84, lines 2-9. A switch, acting as a tripod detector, provides the trigger signal, column 26, lines 26-33.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to adjust the image exposure period as taught by O'Such in response to the trigger signal taught by Keiichiro for the benefit of achieving the greatest

image quality possible based on the current stability of the camera(O'Such, column 84, lines 2-16).

Consider claim 13, and as applied to claim 12 above, Keiichiro further teaches that the trigger is capable of generating the trigger signal in response to the apparatus being connected to a tripod(A tripod is anchored to the camera, and the male screw portion(i.e. a trigger end) of the tripod activates a trigger signal by pressing terminals(22 and 23) together(paragraphs 0010, 0013, 0015, drawing 1.).

Consider claim 14, and as applied to claim 12 above, Keiichiro further teaches that the trigger is capable of generating the trigger signal in response to the apparatus being placed on a substantially flat surface(See drawing 1. The upper recessed portion of tripod detector is clearly a flat surface. Trigger end(21) protrudes past this surface. Therefore, if a substantially flat surface, such as a flat end of a tripod screw was inserted into this recessed portion, a trigger signal would be generated by pressing terminals(22 and 23) together.).

Consider claim 15, and as applied to claim 12 above, Keiichiro further teaches that the trigger is capable of generating the trigger signal in response to a user actuating the trigger(paragraph 0016).

Consider claim 16, and as applied to claim 12 above, Keiichiro further teaches that the trigger comprises means for actuating the trigger in response to applied force and means for stopping trigger actuation in response to the force being removed(paragraphs 0010-0011, drawing 1).

Consider claim 17, and as applied to claim 12 above, Keiichiro further teaches that the trigger signal comprises a voltage(An electrical signal is generated, paragraphs 0010-0013.).

Consider claim 18, and as applied to claim 13 above, Keiichiro does not explicitly teach adjusting the exposure period in response to the trigger signal.

However, O'Such teaches that the image exposure period of the photosensor is lengthened in response to the trigger signal(When connected to a tripod(i.e. in response to a trigger signal), changing the aperture is performed by the microprocessor over decreasing the exposure period in order to improve image quality. When not connected to the tripod, decreasing the exposure period is performed by the microprocessor over changing the aperture in order to compensate for image blur. Therefore, when a going from an unconnected state with a high shutter speed, to a connected state in which a trigger is activated, the shutter speed is decreased(i.e. the exposure period is lengthened) because the camera is stable. See column 84, lines 2-16. See also column 83, lines 46-59.).

Consider claim 19, Keiichiro teaches:

An apparatus(figure 1) comprising:

means for generating an image(The photosensor(10) generates an image by changing incident light into an electrical signal with the help of a CPU(8), paragraphs 0008 and 0009.); and

means for generating a trigger signal to indicate that the apparatus is substantially stationary(Keiichiro teaches a trigger(21, 22, 23) for generating a trigger signal while the apparatus is stationary. The trigger generates a signal indicating that the camera is connected to a tripod, paragraphs 0010, 0013, and 0015.), wherein

However, Keiichiro does not explicitly teach that the means for generating an image adjusts an image exposure period in response to the trigger signal.

O'Such is similar to Keiichiro in that O'Such teaches of a tripod detector for a camera(see figure 2, column 13, lines 62-65, column 83, line 67 through column 84, line 16).

However, in addition to the teachings of Keiichiro, O'Such teaches that an image generator(microprocessor) adjusts an image exposure period in response to the trigger signal(A camera microcomputer senses that a camera is connected to a tripod(i.e. is substantially stationary) and switches to a prioritized scheme the favors increased apertures over shorter shutter speeds, column 84, lines 2-9. A switch, acting as a tripod detector, provides the trigger signal, column 26, lines 26-33.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to adjust the image exposure period as taught by O'Such in

response to the trigger signal taught by Keiichiro for the benefit of achieving the greatest image quality possible based on the current stability of the camera(O'Such, column 84, lines 2-16).

Consider claim 23, and as applied to claim 1 above, Keiichiro further teaches that the apparatus includes a digital camera(paragraph 0008).

9. Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keiichiro in view of O'Such as applied to claims 1 and 7 above, and further in view of Iida(US 2004/0008260).

Consider claim 6, and as applied to claim 1 above, Keiichiro teaches of a photosensor(10), but the combination of Keiichiro and O'Such does not explicitly teach that the photosensor is a CCD.

Iida is similar to Keiichiro in that Iida teaches of a digital camera(figure 2A, 2B, 3) with a photosensor(88).

However, in addition to the teachings of Keiichiro and O'Such, Iida teaches that the photosensor(88) is a CCD(paragraph 0054).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to have the photosensor taught by the combination of Keiichiro and O'Such comprise a CCD as taught by Iida for the benefit that with a CCD it would be possible to confirm on the spot, by reproduction and display of a

photographed image via an LCD just after photographing, whether photographing has been successfully executed or not.

Consider claim 11, and as applied to claim 7 above, Keiichiro teaches of a photosensor(10), but the combination of Keiichiro and O'Such does not explicitly teach that the photosensor is a CCD.

Iida is similar to Keiichiro in that Iida teaches of a digital camera(figure 2A, 2B, 3) with a photosensor(88).

However, in addition to the teachings of Keiichiro and O'Such, Iida teaches that the photosensor(88) is a CCD(paragraph 0054).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to have the photosensor taught by the combination of Keiichiro and O'Such comprise a CCD as taught by Iida for the benefit that with a CCD it would be possible to confirm on the spot, by reproduction and display of a photographed image via an LCD just after photographing, whether photographing has been successfully executed or not.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kai et al.(US 5,687,399) teach of a tripod detection trigger(14 and 15, figure 1).

11. Any objections made by the Examiner to the claims are hereby removed in view of Applicant's response.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert H. Cutler whose telephone number is (571)-270-1460. The examiner can normally be reached on Mon-Fri (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571)-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC

NGOC-YEN VU
SUPERVISORY PATENT EXAMINER